Letters

THE SWEET SOUND OF SCREENING?

Editor,

With a rising incidence of diabetes mellitus in the Northern Ireland population and the forthcoming review of a national screening programme we describe a pilot of diabetes mellitus type II screening. The pilot was carried out in the primary care setting, in three general practice surgeries throughout Northern Ireland; Lurgan, Ballyclare, and Cullybacky.

Diabetes mellitus Type II is one of the major causes of premature death and morbidity in the UK today, with the International Diabetes Federation estimating that the number of sufferers will only continue to grow. Approximately 70,000 people in the province have diabetes, 1000 of which are children[1].With the growing interest in diabetes in healthcare circles and an increase in litigation against doctors over the failure to diagnose diabetes we felt it was wise to look at methods of preventing this disease becoming such a physical burden to patients in future generations; early detection.

The purpose of this study is to appraise the need for a new screening system in general practice surgeries around the country, and to evaluate its effectiveness in the community setting. The study aims to see if the number of patients with diabetes detected by the screening programme is greater than the pickup of new patients by general practitioners, considering the current pickup rate by GPs to be equal to the national prevalence of the disorder, 3.9%[1].

The National Screening Committee announced in 2006, after several large scale studies, that screening for diabetes Type II on a national scale was not a viable option for the NHS to undertake. The purpose of this pilot was not to repeat the findings of previous studies but to select a smaller population of patients who exhibit risk factors for developing diabetes, such as obesity, to see if this increases the cost-effectiveness of screening by detecting a higher proportion of diabetics. Using patient records we developed a study group of patients at high risk of developing type II diabetes, and using a clinical screening setting tested a random selection of these patients for hyperglycaemia.

From a practice population of 28,250 a study group of 580 was drawn together from the criteria stated below. Of this 228 patients were invited to take part in the screening programme. Based on an initial audit and the guidelines laid down by the American Diabetes Association and by the Australian Diabetes Association, we devised the following inclusion criteria[2, 3]:

Patients with a BMI ≥25 kg/m2

Patients aged between 40 and 50

Individuals who had either a blood sugar test or urinalysis in the past two years (where documented) or were known diabetics were excluded.

Out of the 228 patients who were contacted and asked to take part, 111 responded and attended the screening sessions. Three positive results for hyperglycaemia were obtained. Using statistical analysis, we determined that although new diabetics were detected, the number was not statistically significant.

Whilst carrying out this study into the effectiveness of screening high risk group we also looked at the effects that the wording of a screening letter had on the attendance rates in each of the three centres. We found attendance rates differed greatly between practices, with an average attendance rate of 44%. Using statistical analysis a significant difference was found in attendance rates based on differing appointment types and terminology used in the appointment letters. It was found that the use of flexible appointment times, drop in clinics, and the use of 'high risk' terminology increased attendance rates.

Overall we found that there is minimum benefit to be gained from a targeted nationwide screening program for diabetes type II in patients, aged between 40 and 50, with a BMI of ≥25 kg/m2. With regard to increasing attendance rates using 'high risk' terminology in letters and flexible appointment times can bolster attendance rates at screening sessions.

The authors have no conflicts of interest.

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REFERENCES

1. Diabetes UK – Diabetes in Northern Ireland. 2011. Available online from: http://www.diabetes.org.uk/In_Your_Area/N_Ireland/Diabetes_in_Northern_Ireland/ [Accessed on 23rd March 2011]
2. American Diabetes Association. *Screening for type 2 diabetes. Diabetes Care* 2004 Jan: 27(Suppl 1): S11-4.
3. Dunstan D, Zimmet P, Welborn T, et al. *The rising prevalence of diabetes and impaired glucose tolerance: the Australian Diabetes, Obesity and Lifestyle Study. Diabetes Care* 2002; **25**: 829-834.